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February 12, 1992

EX PARTE OR LATE FILED

Ms. Donna R. Searcy, Secretary
Federal Communications Commission
1919 M Street N.W. Room 222
Washington, D.C. 20554

Re: Notice of Ex Parte Contact in RM-7617

Dear Ms. Searcy:

Mobile Telecommunications Technologies, Inc. ("Mtel"), by its attorneys, hereby notifies the Commission of an ex parte contact in Docket RM-7617. On February 11, 1992, Michael Senkowski, Counsel to Mtel; Jai Bhagat, Vice-President of Mtel; and Dennis Cameron, Assistant Vice-President of Engineering of Mtel, met with Chief Engineer Thomas Stanley to discuss issues in the attached documents and to encourage moving forward with a Notice of Proposed Rule Making in the above-captioned proceeding pending before the Commission.

If you have any questions related to this notification, please contact the undersigned at (202) 429-7249.

Respectfully submitted,

R. Michael Senkowski

R. Michael Senkowski

Encl.
cc: Chief Engineer Thomas P. Stanley
David R. Siddall, Chief, Frequency Allocation Branch

ADVANCED MESSAGING SERVICES PROPOSED FOR THE 930-931 MHz BAND

Acknowledgement Paging Service
Advanced Architecture Paging Service
Ground-to-Air Paging Service
Mobile Data Radio Service
Nationwide Wireless Network Service
Personal Network Access Communications Service
Public Facsimile Broadcast Service

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February 10, 1992

ADVANCED MESSAGING SERVICES
930-931 MHz CHANNEL AVAILABILITY

A number of companies have petitioned the Commission to initiate rulemaking proceedings to establish specific services that could constitute Advanced Messaging Services (AMS). Each of these proposed services places demands on the 1000 kHz of spectrum available in the 930-931 MHz band for AMS. However, as shown in the tabulation below, the aggregated requirements of all seven petitions -- accommodating at least 21 new sources of service anywhere in the U.S. -- are between 1000 and 1075 kHz. In fact, all of the petitions could be granted with slight modifications to one or more of the requests.

Service Description	Petitioner	Competitive Systems Proposed	Channel Size	Total Spectrum Req'ts
Acknowledgement Paging Service	Dial Page, Inc.	3	25 kHz	75 kHz
Advanced Architecture Paging	PacTel Paging, Inc.	3	25 - 50 kHz	75 - 150 kHz[1]
Ground-to-Air Paging	PacTel Paging, Inc.	3	25 kHz	75 kHz
Mobile Data Radio Service	Echo Group, L.P.	6	50 kHz	300 kHz
Nationwide Wireless Network	Mobile Telecommunications Technology Corp.	3	50 kHz	150 kHz
Personal Network Access Communications Service	NAC, Inc.	1	250 kHz	250 kHz[2]
Public Facsimile B/cast Service	MAX-FAX Services Co.	3	25 kHz	75 kHz[3]
	TOTAL	**21**		**1000 - 1075 kHz**

[1] PacTel's petition calls for AAP channels between 25 and 50 kHz, and requests allocation of all 930-931 MHz spectrum not allocated to AMS. For illustrative purposes, we have shown 3 competing AAP providers.

[2] NAC, Inc. has also indicated that available spectrum at 901-902 MHz and 940-941 MHz may be appropriate for P*NAC services.

[3] MAX-FAX has indicated that PFBS could also potentially be deployed on air-to-ground radio channels or on vacant 929-930 MHz private carrier paging channels, although 930-931 MHz spectrum is preferable.

SUMMARY OF SERVICES PROPOSED FOR THE 930-931 MHz BAND

I. Acknowledgement Paging Service (Dial Page, Inc.)

Dial Page, Inc. ("Dial Page") has requested allocation of 75 kHz in the 930-931 MHz band in order to permit 3 operators to provide Acknowledgement Paging Service ("APS") over 25 kHz channels. Each carrier would be licensed in either the Pacific Region, the Midwest Region, or the Atlantic Region. APS would transform paging, currently only a one-way service, into a limited two-way service by allowing users to confirm receipt of a page by returning one of a number of preformatted responses. Dial Page's APS system utilizes a network of receivers to pick up transmissions from combined pager/APS transmitters the size of conventional pager. APS transmitters would utilize approximately 2 Watts ERP, allowing each receiver to cover an area of approximately 3 square miles. Outbound paging service would be provided through conventional paging channels.

II. Advanced Architecture Paging (PacTel Paging, Inc.)

PacTel Paging, Inc. ("PacTel") has petitioned the Commission to allocate all 930-931 MHz spectrum unused by AMS for an Advanced Architecture Paging ("AAP"). AAP offers an unformatted digital data stream -- a platform for providing advanced messaging services including graphics, video, E-Mail, facsimile, digitized voice, and extended alphanumeric transmission capability. PacTel has estimated that AAP will require channels between 25 and 50 kHz, and recommends multiple licensees for each of the Pacific, Midwest, and Atlantic regions.

III. Ground-to-Air Paging (PacTel Paging, Inc.)

PacTel Paging, Inc. ("PacTel") has requested the Commission to allocate spectrum in the 930-931 MHz band for Ground-to-Air Paging ("GAP"). GAP is intended to extend the benefits of conventional paging to subscribers in transit on airplanes. PacTel has requested allocation of 3 25 kHz channels, to be assigned on a regional basis, for the GAP service.

IV. Mobile Data Radio Service (Echo Group, L.P.)

Echo Group, L.P. ("Echo") has proposed a Mobile Data Radio Service ("MDRS") for the 930-931 MHz band. MDRS will allow the two-way exchange of digital data among laptops, notebook computers, and fixed computers. Echo has requested allocation of 300 kHz for MDRS, to permit 6 providers to obtain nationwide licenses. Each licensee's 50 kHz of spectrum is subdivided into 10 5 kHz channels, which are used to effectuate a microcellular frequency re-use scheme.

V. Nationwide Wireless Network Service (MTel)

Mobile Telecommunications Technologies, Inc. ("MTel") has requested the Commission to allocate 150 kHz in the 930-931 MHz band for 3 Nationwide Wireless Network ("NWN") providers. NWN will permit high-speed two-way transmission of digital data between small portable computers and computers on the landline network. NWN will use a single 50 kHz channel in simplex mode, employing high-power

enhanced multitone modulation simulcast techniques to achieve base-to-mobile throughput rates up to 24,000 bps. Mobile-to-base transmissions, in contrast, are low-powered (up to 7 Watts ERP), and use an intelligent scheduling system to provide considerable overall throughput for the return channel.

VI. Personal Network Access Communications (NAC, Inc.)

NAC, Inc. ("NAC") has proposed to use 250 kHz in the 901-902, 930-931, or 940-941 MHz band to provide a Personal Network Access Communications Service ("P*NAC"). P*NAC will utilize a microcellular network to provide person-to-person signaling while still using the existing telecommunications networks for voice communication wherever possible. P*NAC subscribers will have a credit card-sized device providing access to a host of intelligent network features like a personal telephone number; location independent personalized services; interactive call screening, redirection or rejection; custom calling features; and certain transactional features like text transmission and security services.

VII. Public Facsimile Broadcast Service (MAX-FAX Services Co.)

MAX-FAX Services Co. ("MAX-FAX") has proposed a Public Facsimile Broadcast Service ("PFBS") using the 930-931 MHz band, the air-to-ground band, or vacant 929-930 MHz private carrier paging channels. MAX-FAX has indicated that the 930-931 MHz band is preferable, however, since it is requesting three 25 kHz channels, of which two will be set aside for nationwide PFBS operations. PFBS

receivers will be connected to users' facsimile machines through an RJ-11 adapter connected to both the telephone network and the facsimile machine. PFBS broadcasts would provide newspaper style facsimile transmissions periodically, either overriding telephone facsimile transmission or storing such transmissions for later printing. PFBS transmitters would broadcast at power levels consistent with traditional high-power paging services.

APPENDIX C
Proposed Rules for Implementing NWN Service

Additions are underlined (e.g. new)
Deletions are struck out (e.g. ~~old~~)

PART 22--PUBLIC MOBILE SERVICE

Subpart A--General

§ 22.2 Definitions

. . .

Nationwide wireless network service. A two-way service providing data transmission capability between a network of base stations and portable user terminals.

. . .

Subpart B--Applications and Licenses

GENERAL FILING REQUIREMENTS

. . .

§ 22.9 Standard application forms and permissive changes or minor modifications for the public mobile service.

. . .

(e) *Nationwide Wireless Network Service Applications.* The rules listed above do not apply to licensees and applicants in the nationwide wireless network service. Instead, the following rules shall apply to nationwide wireless network licensees and applicants:

(1) *Application for a new license in the nationwide wireless network service.* Applications for an initial license in the nationwide wireless network shall be made on FCC Form 401.

(2)(a) *Notification of status of facilities for the Nationwide Wireless Network service.* When construction has been completed in accordance with each of the benchmarks established in the radio station authorization, the licensee shall so notify the Commission using Form 489.

(b) *Extensions of time and reinstatement.* When a licensee has not completed construction in accordance with the provisions of § 22.43(f) of this part, a timely application for extension of time (FCC Form 489) must be filed. Form 489 shall also be used for requests for reinstatements of authorizations if filed within 30 days after the authorization expired (§ 22.43(d)).

(c) If a Form 489 is not filed after completing construction or is filed but is not in accordance with the rules of this part the authorization will automatically expire.

(3) *Permissive changes or minor modifications of authorization.* The following changes do not require prior Commission authorization but merely notification. A Form 489 must be filed to notify of any permissive change and the licensee may commence service the day Form 489 is postmarked.

(a) Construction, operation, or deletion of base transmitter locations on the same frequency as allowed under § 22.117(d);

(b) Construction, operation, or deletion of base receiver locations on the same frequency as allowed under § 22.117(d), provided that a receiver may be activated without the filing of a Form 489 but such a receiver will not be accorded interference protection or considered in determining completion of construction unless a Form 489 is filed;

(c) Correction of coordinates of base transmitters or base receivers.

. . .

§ 22.15 Technical content of applications.

(a) All applications required by this part shall contain all technical information required by the application form and any additional information necessary to fully describe the proposed construction and to demonstrate compliance with all technical requirement of the rules governing the radio service involved (see Subparts C, F, G, H, I, J, ~~and K,~~ K, and N as appropriate). The following paragraphs describe a number of general technical requirements.

. . .

(1) . . .

. . .

(i) Applicants in the Nationwide Wireless Network Service shall list the proposed sites necessary to meet the first two year benchmarks listed in § 22.43(f).

. . .

(b) Each public land mobile service application for a radio station authorization for a new base station or a major modification to an existing base station, except applications in the nationwide wireless network service, shall make the following showings:

. . .

(o) In the Nationwide Wireless Network Service each application shall contain the information required in Subpart N of this part.

. . .

§ 22.23 Amendment of applications. (See also §§ 22.918)

. . .

(h) *800 MHz Air-Ground Radiotelephone Service and Nationwide Wireless Network Service*.

. . .

(2) The proposed addition of base stations will be considered a minor amendment as long as the initial application proposed 50 ground stations, if the application is for the 800 MHz Air-Ground Services, or the initial application proposed service in accordance with the 6 year benchmark in § 22.43(f), if the application is for the Nationwide Wireless Network Service.

. . .

PROCESSING OF APPLICATIONS

. . .

§ 22.27 Public notice period.

. . .

(b)(3) Applications in the Nationwide Wireless Network Service shall be filed initially during a one-day period to be announced by publication in the Federal Register. After all initial applications have been either granted or dismissed, if any Nationwide Wireless Network frequencies are then available the Commission shall announce by public notice a filing date for remaining frequencies. From this filing date forward, applications shall be processed on a daily first-come, first-served basis.

. . .

§ 22.29 Ownership changes and agreements to amend or to dismiss applications or pleading.

. . .

(c) The provisions of § 22.29 do not apply to the 800 MHz Air-Ground Radiotelephone Service or the Nationwide Wireless Network Service.

§ 22.31 Mutually exclusive applications.

. . .

(a) . . .

. . .

(2) In the Nationwide Wireless Network Service, applications will be considered mutually exclusive if:

(i) There are more applications filed in the initial one-day filing window (see § 22.27(b)(3)) than channels available for the Nationwide Wireless Network Service as provided in § 22.1202.

(ii) There is more than one application filed on a particular day for an unlicensed channel available for the Nationwide Wireless Network Service.

(b) . . .

. . .

(3) In the Nationwide Wireless Network Service, an application only will be entitled to comparative consideration with one or more applications if the application is mutually exclusive with the other applications and the application is deemed to be acceptable for filing.

. . .

(i) During the initial filing window for frequencies in the Nationwide Wireless Network Service, applicants may specify a frequency preference, but the Commission shall assign all frequencies. After the initial filing window, an applicant must select the frequency for which it is applying. In the event of mutually exclusive applications occurring in the Nationwide Wireless Network Service during the initial filing window or more mutually exclusive applications are received for the Nationwide Wireless Network Service on the same day after the initial filing window has opened and closed than frequencies remaining, a comparative hearing (see § 22.1217) will be held and the most qualified applicants selected from among all

applications that have not been dismissed or otherwise found unacceptable. The most qualified applicants will be licensed from available frequencies.

. . .

§ 22.32 Consideration of applications.

. . .

(e) . . .

. . .

(6) In the Nationwide Wireless Network Service the application is entitled (under § 22.31) to comparative consideration (with another application (or applications); in such cases the hearing shall conform to the comparative evaluation procedure described in § 22.1217.

. . .

§ 22.40 Considerations involving transfer or assignment applications.

. . .

(d) *Nationwide Wireless Network Service.* Applications and authorizations for unconstructed facilities in this service may not be transferred or assigned (other than a *pro forma* transfer or assignment) or be the subject of any substantial changes in ownership.

(1) Authorization in the Nationwide Wireless Network Service may be transferred or assigned or subject to changes in ownership only after the licensee has met the 2 year benchmark established in § 22.43(f). Transfer or assignment applications filed prior to the expiration of this one year period will be dismissed.

. . .

§ 22.43 Period of construction.

. . .

(f) *Nationwide Wireless Network Service.* Applicants may not preconstruct facilities in the Nationwide Wireless Network Service.

(1) Licensees in the Nationwide Wireless Network must establish service according to the following schedule after the grant of the initial authorization:

(i) In the following MSAs within 18 months

(A) New York, NY/Naussau-Suffolk, NY/Newark, NJ and Paterson-Clifton-Passaic, NJ;

(B) Los Angeles-Long Beach/Anaheim-Santa Ana-Garden Grove/Riverside Santa Bernardino-Ontario, CA;

(C) Chicago, IL;

(D) Philadelphia, PA;

(E) Detroit/Ann Arbor, MI;

(F) Boston-Lowell-Brockton-Lawrence Haverhill, MA;

(G) San Francisco-Oakland, CA;

(H) Washington, DC-MD-VA;

(I) Dallas-Fort Worth, TX; and,

(J) Houston, TX;

(ii) In 30 of the top 100 MSAs within 2 years;

(iii) In 60 of the top 100 MSAs within 4 years; and,

(iv) In all of the top 100 MSAs within 6 years;

(2) For purposes of this rule, service is considered to be established if:

(i) The licensee has provided reliable service area coverage (see § 22.1203) to 75 percent of the geographic area or population of the MSA for base to user terminal communications; and,

(ii) The licensee has at least four base receivers for each base transmitter in an MSA; and,

(iii) The licensee has provided fully operational two-way transmission service two years after the first base transmitter is operational in an MSA.

(3) Failure to comply with any of the requirements of this section will cause the authorization to expire automatically and the authorization must be submitted to the Commission for cancellation.

. . .

§ 22.45 License period.

. . .

(d) Nationwide Wireless Network Service. The license will terminate 10 years from the date of grant.

Subpart C--Technical Standards

. . .

§ 22.110 Antenna polarization.

. . .

(f) The provisions of § 22.110 do not apply to stations in the 800 MHz Air-Ground Radiotelephone Service or the Nationwide Wireless Network Service.

. . .

§ 22.117 Transmitters.

. . .

(d) *Nationwide Wireless Network Service.* A licensee in the Nationwide Wireless Network Service may construct and operate additional base transmitters on its assigned frequency in accordance with the requirements of subsection (b) of this section, except that the licensee may construct additional base transmitters regardless of whether the additional base transmitter is within the existing reliable service area contour. Such authority is conditioned upon the licensee:

(i) obtaining marking and lighting specifications from the Commission Antenna Survey Branch before commencing construction;

(ii) if the construction will have a significant environmental impact under § 1.1307, filing and the Commission completing review of an Environmental Assessment, *see* § 1.1307, prior to commencing construction.

. . .

§ 22.119 Limitation on use of transmitters for other services.

Transmitters licensed for operation in services governed by this part may not be concurrently licensed or used for non-common carrier communications purposes, unless the carrier is a Nationwide Wireless Network Service licensee electing non-common carrier treatment under § 22.1201 of Subpart N. However, mobile units may be concurrently licensed or used for non-common carrier purposes provided that the transmitter is type-accepted for use in each service.

. . .

Subpart D--Technical Operation

. . .

§ 22.213 Station identification.

. . .

(f) Licensees in the Nationwide Wireless Network Service shall not be required to identify the station.

. . .

Subpart N--Nationwide Wireless Communications Service

§ 22.1200 Scope.

This subpart sets out the regulations governing the licensing and operations of nationwide wireless network (NWN) systems authorized in the 930.0-931.0 MHz band. It includes eligibility requirements, application procedures, and operational and technical standards for NWN licensees. The rules in this subpart are to be read in conjunction with the applicable requirements contained elsewhere in this part; however, in case of conflict, the provisions of this subpart shall govern.

§ 22.1201 Eligibility.

NWN authorizations will be issued to existing and proposed common carriers and non-common carriers. The applicant shall submit a statement indicating whether service will be provided on a common carrier or a non-common carrier basis. Notwithstanding the carrier's election of common carrier or non-common carrier status, applications will be granted only in cases where it can be shown that the applicant is legally, financially, technically and otherwise qualified to render the proposed service as a common carrier and the public interest, convenience and necessity would be served by a grant thereof.

§ 22.1202 Frequencies.

The following exclusive nationwide frequency assignments are available for the NWN service:

NWN1:	930.000-930.050
NWN2:	930.050-930.100
NWN3:	930.100-930.150

§ 22.1203 NWN reliable service area.

The reliable service area for base to user terminal NWN transmission is defined as the 43 dBu contour established using procedures consistent with § 22.504 and F.C.C. Report No. R-6406, "Technical Factors Affecting The Assignment of Facilities In The Public Mobile Service," by Roger B. Carey. Standards and procedures presently applied to stations in the 450-470 MHz band should be used. In cases where the applicant believes that Report No. R-6406 does not accurately depict the realistic 43 dBu service contour(s) of the base station(s) proposed, the applicant may submit for the Commission's consideration alternative propagation studies in addition to the above required studies. All supporting data and calculations must be included with the results of the studies.

§ 22.1204 Height-power limitations.

Stations in this service shall not be permitted to exceed the effective radiated power indicated below:

	Watts (ERP)
Base stations	3500
User terminals	7

§ 22.1205 Types of emissions and modulation requirements.

[To be determined.]

§ 22.1206 Emission requirements.

Licensees in the NWN service are required to employ means to attenuate spurious signals from transmitters in the nationwide wireless network service:

(a) For any frequency removed from the center of the authorized bandwidth by a displacement frequency (fd in kHz) of more than 17.5 kHz up to and including 22.5 kHz: at least 83 $\log_{10}((fd - 12.5\ kHz)/5)$ decibels;

(b) For any frequency removed from the center of the authorized bandwidth by a displacement frequency (fd in kHz) of more than 22.5 kHz up to and including 75 kHz: at least 116 $\log_{10}((fd - 12.5\ kHz)/6.1)$ decibels or 50 + 10 $\log_{10}(P)$ decibels or 70 decibels, whichever is the lesser attenuation;

(c) For any frequency removed from the center of the authorized bandwidth by a displacement frequency (fd in kHz) of more than 75 kHz: at least 43 + 10 $\log_{10}(P)$ decibels or 80 dB, whichever is the lesser attenuation.

§ 22.1207 Transmitter construction and installation.

The equipment at the operating and transmitting positions shall be so installed and protected that it is not accessible to, or capable of being operated by, persons other than those duly authorized by the licensee. In general each transmitter used in the NWN service shall be so constructed or installed that all controls thereon which may cause off-frequency operation or result in any unauthorized emission shall be protected from access by other than a technically qualified person.

§ 22.1208 Control point.

(a) Each NWN system is required to have:

(i) At least one control point.

(ii) A person on duty at the control point who is in charge of system operation during the normal rendition of service.

(b) At each control point, facilities which will permit the operator to turn off base station transmitters shall be installed.

§ 22.1209 Station identification.

NWN base stations and user terminals shall not be required to transmit identifying call signs.

§ 22.1210 Permissible communications.

(a) NWN user terminals in this service are authorized to communicate with and through base stations only. Such communications between base stations and user terminals shall be upon the frequency in § 22.1202 authorized to the base station licensee.

(b) Base stations in this service are authorized only to render service to associated subscribers or customers.

(c) Notwithstanding paragraphs (a) and (b) above, licensees also are permitted to utilize NWN user terminals and base stations to render incidental communications services to the licensee and to perform any tests necessary for the provision of NWN service.

(d) All general two-way digital communications are permitted on NWN frequencies.

§ 22.1211 Responsibility for operational control and maintenance of mobile stations.

A NWN licensee shall be responsible for exercising effective operational control over all user terminals with which the NWN system communicates. The proper installation, maintenance and repair of such user terminals shall normally be the responsibility of the NWN licensee except that customer provided equipment shall be the responsibility of the customer.

§ 22.1212 Ownership interests in multiple applications to provide NWN service.

(a) No party may have an ownership interest, direct or indirect, in more than one application for NWN service, except that (i) interests of less than one percent will not be considered, (ii) interests of less than five percent in publicly traded corporate applicants will not be considered, (iii) passive interests of less than ten percent will not be considered, if the applicant submits an affidavit stating that no passive investor has attempted to exert any influence or control over the officers of the applicant.

(b) Attribution of ownership interests in a publicly traded corporate applicant for NWN service that is held indirectly by any party through one or more intervening corporations will be determined by successive multiplication of the ownership percentages for each link in the vertical ownership chain and the application of the relevant attribution benchmark to the resulting product, except that wherever the ownership percentage for any link in the chain exceeds 50 percent, it shall not be included for purposes of this multiplication (*i.e.*, interests over 50 percent are counted as interests of 100 percent).

§ 22.1213 Content and form of NWN applications.

(a) NWN applications must be filed on FCC Form 401. The first page of the application after the cover shall be a table of contents listing the exhibits contained in the application, followed by a certification, *see* § 22.1213(b)(2). The following exhibits must be submitted with the application, numbered as follows:

(1) Exhibit I - Full sized maps for each MSA for which service is proposed. This map must be on a scale of 1:250,000. The map must have a legend, scale, latitude and longitude. This map must be clear, legible and have base transmitter and receiver sites specifically plotted. It must depict with clear labelling, the base transmitter 43 dBu contours, base transmitters and the MSA boundaries visibly marked on the map. Regardless of the scale used to satisfy the requirements for the reduced map in Exhibit II, the 1:250,000 scale map must always be used to satisfy the requirements of Exhibit I.

(2) Exhibit II - 8 and 1/2 by 11 inch reduced 1:250,000 scale maps of each MSA proposed to be served. If it is impractical to depict the entire MSA on the map with a scale of 1:250,000, applicants may use a map with a scale of 1:500,000 or similar scale. The entire MSA must be depicted, clearly labeled, with the boundaries visibly marked and the map must show base transmitter sites and the base transmitter 43 dBu contours.

(3) Exhibit III - An exhibit containing independently prepared engineering data and calculations used to derive the service contours shown. See § 22.1203. For purposes of this rule, "independently prepared" shall mean an engineering exhibit prepared by, or for, the sole use of the applicant.

(4) Exhibit IV - An exhibit detailing both base to user terminal and user terminal to base transmission networks. This exhibit should describe modulation techniques, signaling protocols, and contain estimates of traffic throughput and system capacity.

(5) Exhibit V - Ownership information in accordance with Section 22.13(a)(1). In addition, individual applicants holding less than a 1 percent interest in another applicant or less than a 5 percent interest in a publicly held corporation that has or will file a mutually exclusive application must disclose the fact that the corporation and the applicant both have filed mutually exclusive applications. This disclosure must include the applicant's percentage interest held in the company.

(6) Exhibit VI - An Exhibit setting forth how the proposal complies with the Commission's nationwide wireless network design concepts, and indicating the applicant's projected method for coordinated expansion of the system in response to changing demand.

(7) Exhibit VII - An indication of the basis which the applicant will use to determine whether sufficient congestion exists to warrant system expansion.

(8) Exhibit VIII - Full particulars regarding the cost of construction and other expenses of the proposed facilities through the 2 year benchmark in § 22.43(f) and demonstration of how the applicant intends to finance construction and other initial expenses and operation for two years. *See* Section 22.1218.

(9) Exhibit IX - A detailed description of the user interface to be provided, including any particulars on interconnection with the public landline switched telephone network.

(10) Exhibit X - An exhibit indicating whether a grant of the application may have a significant environmental effect under § 1.1307, in which case the applicant must submit an Environmental Assessment, *see* § 1.1311, and Commission environmental review must be completed prior to the construction of facilities. *See* § 1.1312.

(11) Exhibit XI - An exhibit detailing the applicant's experience with the construction and operation of radio systems.

(12) Exhibit XII - An exhibit describing any actual experimentation conducted by the applicant to validate the transmission technologies and protocols to be used in the proposed NWN system.

(b) Applications shall be filed as set forth below:

(1) An original and one paper copy of the application which must be enclosed in stiff covers and fastened securely along the left edge without

exposed sharp edges (looseleaf binders, plastic binding strip, covered metal clasps) along with three microfiche copies in accordance with the requirements of Section 22.6(d), including appropriate filing fees, must be filed at the Strip Commerce Center Facility in Pittsburgh, Pennsylvania.

(2)(i) The transmittal sheet will include a certification. All applicants must certify to the following in their applications:

> I hereby certify, under penalty of perjury, that this application for a NWN authorization is complete in every respect and contains substantially all of the information required by FCC Form 401 and the Commission's NWN application rules. I acknowledge that, if upon Commission inspection, this certification is shown to be incorrect, this application shall be dismissed without further consideration.
>
> I also certify that [name of applicant] is the real party in interest in this application and there are no agreements or understandings, other than those specified in this application, which provide that someone other than the applicant shall hold an indirect or direct ownership interest in the applicant or control over the applicant. It is also certified that the applicant intends to construct and operate the station as proposed and that there are no agreements or understandings that are inconsistent with that intent.
>
> Executed on _____
> Applicant Signature _____
> Print name _____
> Title _____

(ii) The certification must be signed in ink. No mechanical reproductions of signatures may be used. The certification must be dated and signed in accordance with the requirements of Section 1.743 of the Rules. The title of the person signing the certification must be stated. In the case of a corporate applicant, the person signing the certification must be an officer of the corporation.

(3) The application, the filing fee, and the microfiche envelope shall be placed in a sealed envelope. The applicant's name must be prominently displayed in the lower left hand corner of the envelope for all applications sent

by mail and placed in the center of the envelope for applications delivered to the Strip Commerce Center Facility, at Pittsburgh, Pennsylvania.

(4) Notification to the FAA, if necessary, must be undertaken at the time a license is granted or 45 days after the application has appeared on public notice as acceptable for filing if no mutually exclusive application is filed.

§ 22.1214 Provision of service to subscribers.

Subscriptions to NWN service shall be afforded to the public in chronological order of filing of request for service for all common carriers licensed under this Subpart, except under emergency conditions. Prospective subscribers shall be informed of the area in which reliable service can be expected. If a licensee turns away a request for service due to lack of capacity it shall report that fact to the Commission and indicate how it plans to remedy the lack of capacity. Licensees electing to operate as private carriers shall enter into agreements with subscribers. Copies of such agreements shall be filed with the Commission if requested by the Commission.

§ 22.1215 Processing of NWN applications.

Applications for facilities to operate on the frequencies governed by this subpart will be processed as follows:

(a) All applications will first be considered to determine whether they are substantially complete and acceptable for filing. If so, they will be assigned a file number and put in pending status. If not, they will be returned to the applicant.

(b) Except as otherwise provided in this section, all applications in pending status will be processed in the order in which they are received, determined by the time and date on which the application was received by the Commission.

(c) Each application will then be reviewed to determine whether it can be granted.

(d) An application which is dismissed will lose its place in the processing line.

(e) If an application is returned for correction and resubmitted and received by the Commission within 30 days from the date on which it was returned to the

applicant, it will retain its place in the processing line. If it is not received within 30 days, it will lose its place in the processing line.

(f) NWN applications will only be acceptable for filing if they are received by the Commission prior to the applicable cut-off established by the Commission except as provided for in § 22.27(b)(3).

§ 22.1216 Comparative evaluation of NWN applications.

(a) If no more than three applications are filed in the initial filing window or if no more applications are filed on a given day after the initial application window than NWN frequencies available for assignment that conform with all applicable rule requirements, the Commission will grant each application without a hearing if such a grant would serve the public interest, convenience or necessity.

(b) If more than three such applications are received, the Commission will conduct a comparative hearing among all of the applicants in a manner consistent with subparagraph (d) below to determine which three applications to grant consistent with the public interest, convenience and necessity. The criteria that shall be considered in determining which three applications should be granted include, but are not limited to:

(1) the number of MSAs in which service will be provided and their populations;

(2) the geographic area of coverage and population covered;

(3) the number of base stations to be constructed;

(4) the number of user terminals to be served;

(5) the spectral efficiency of the system architecture and technologies which the system will utilize;

(6) the amount of developmental effort and experimental verification the applicant has undertaken to validate the proposed systems; and,

(7) the applicant's experience in operating wide area communications systems.